UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/932,467 | 08/17/2001 | David Earl Butz | B00339.70001 | 3362 |

23628 7590 06/17/2004

WOLF GREENFIELD & SACKS, PC
FEDERAL RESERVE PLAZA
600 ATLANTIC AVENUE
BOSTON, MA 02210-2211

| EXAMINER | |
|---|---|
| TRAN, ANDREW Q | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2824 | |

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/932,467 | BUTZ, DAVID EARL | |
| | Examiner | Art Unit | |
| | Andrew Q. Tran | 2824 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the c rrespondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *12 November 2003 and 25 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-4 and 6-44* is/are pending in the application.

4a) Of the above claim(s) *26-42* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-25,43 and 44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 November 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/12/02 & 1/13/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Election/Restrictions*

The Preliminary Amendment and Species Election filed November 12, 2003 (hereafter "Paper 11122003") and the Election of Species filed March 25, 2004 (hereafter "Paper 03252004) have been received and placed of record.

Applicant's election with traverse of Species A/ of Figures 2 through 8 in Paper 11122003, is acknowledged. The traversal is on the ground(s) that elected species A/ should be broadened to also cover Figures 9-11, 16-17 and 19-20. This is not found persuasive because of the reasons set forth in the Species Election Requirement mailed September 08, 2003. Further in Paper 03252004, the listing of claims corresponding to said elected species A/ was resubmitted as being claims 1-4, 6-25 and 43-44.

The requirement is still deemed proper and is therefore made FINAL.

Claims 26-42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper 11122003.

### *Specification*

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

--System and methods for addressing a matrix incorporating virtual columns and addressing layers--.

Claims 15 and 19-22 are objected to because of the following informalities:

In claim 15, line 1, "device" should be changed to --system--. In claims 19-22, line 1, "claim 17" should be changed to --claim 18--. Further in claim 20, line 2, --a-- should be added after "is". In claim 25, line 1, --the-- should be added after "wherein".

Appropriate correction is required.

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 6-25 and 43-44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-34 of U.S. Patent No. 6,462,977 to Butz on October 08, 2002. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both claim a substantially similar device comprising "virtual columns" and "addressing layers".

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 6-25 and 43-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Numerous claims recite indefinite terms because it is unclear what are meant by said terms. Examples of said terms are: "... *addressing layers*" (claim 1, line 3); "... *addressable switch elements*" (claim 1, lines 3-4); or "... *virtual columns*" (claim 6, line 3).

Claims 16-25 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

In claim 16, lines 2 and 4, "a first virtual column" and "a second virtual column" lack any structural interconnection between them or to other claimed elements.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-25 and 43-44, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Fellows (US Pat. 5,121,249 hereafter "Fellows"). See for example Figs. 6 and 1.

As to claims 14-15 and 24-25, optical input signals $A_1$- $A_3$ and $B_1$- $B_3$ and photovoltaic devices 15a-15f read on the "optical signals" and "electrical signals", respectively.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Johnson et al. (US Pat. 6,483,736 B2) describes a vertically stacked field programmable nonvolatile memory and method of fabrication.

Berry et al. (EP Pub. 0 481 820 A2) describes a continuous high-density cell culture system.

Berry et al. (JP 4-262775) describes a continuous high-density cell culture system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Q. Tran whose telephone number is (571) 272-1885. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard T. Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Q. Tran
Primary Examiner
Art Unit 2824

at
June 15, 2004